

<b>PARTICIPANT TYPE.....ALL</b>
<b>HIGH RISK.....YES</b>

**RISK DESCRIPTION:**

Diseases or conditions that interfere with the intake or absorption of nutrients. Includes but is not limited to:

- Gastroesophageal reflux disease (GERD)
- Peptic ulcer
- Post-bariatric surgery (women participant types only)
- Short bowel syndrome (SBS)
- Inflammatory bowel disease (IBD) including ulcerative colitis or Crohn's disease
- Liver disease
- Pancreatitis
- Biliary disease (gallbladder disease)

Presence of gastrointestinal disorders diagnosed by a physician as self-reported by applicant, participant, or caregiver; or as reported or documented by a physician, or someone working under physician's orders.

**ASK ABOUT:**

- Attitude and knowledge about condition and treatment plans including special diet, nutritional supplements, and medications to manage diarrhea and constipation
- Dietary supplements including vitamins, minerals, herbal products and targeted nutrition therapy products
- Food-medication interactions
- Barriers to following prescribed diet and/or obtaining medications (e.g., health beliefs, religious or cultural practices, finances, access to follow-up health care)
- Frequency of vomiting or diarrhea (which cause nutrient loss)
- Foods, beverages and eating patterns that contribute to symptoms and that relieve symptoms
- Recent changes in weight
- Appetite

## **NUTRITION COUNSELING/EDUCATION TOPICS:**

- All Participants:
  - Provide counseling messages that support the medical nutrition therapy initiated by the clinical dietitian. Monitor compliance with medical nutrition therapy regimens.
  - Identify the WIC foods, formulas and/or medical foods that are consistent with the treatment plan. Review and provide WIC-approved medical foods or formulas as prescribed by the primary care providers.
  - Determine and discuss an eating pattern appropriate for the participant's weight goal (i.e., maintain, gain or lose weight)
  - Frequent loss of nutrients through vomiting, diarrhea, malabsorption or infections can cause malnutrition and lower resistance to disease.
  - Gastrointestinal disorders increase nutritional risk in a number of ways including restricted food intake, abnormal swallowing, impaired digestion in the intestine, generalized or specific nutrient malabsorption, or excessive gastrointestinal losses of fluids and nutrients.
- Gastroesophageal Reflux Disease (GERD):
  - GERD is the irritation and inflammation of the esophagus due to reflux of gastric acid. Nutrition care may include avoiding eating at least three hours before going to bed; avoiding fatty foods, chocolate, peppermint, and spearmint which may relax the lower esophageal sphincter; and avoiding coffee and alcoholic beverages which may increase gastric secretion.
  - These items may only need to be limited rather than avoided altogether based on individual tolerance.
- Peptic Ulcer:
  - Peptic ulcer normally involves the gastric and duodenal regions. The primary cause is *Helicobacter pylori* infection, so the treatment focus is the elimination of the bacteria.
  - Dietary advice may include avoiding alcohol, coffee (with and without caffeine), chocolate, and specific spices such as black pepper.
- Post-bariatric Surgery:
  - The various surgical procedures for the intervention of morbid obesity promote weight loss by restricting dietary intake. This greatly increases the risk for developing nutritional deficiencies after surgery. Vitamin B12 deficiency can develop without supplementation since these individuals have a decreased availability of gastric acid and intrinsic factor.
  - Daily nutritional supplements and nutrient-rich foods are important aspects of nutritional management.

## NUTRITION COUNSELING/EDUCATION TOPICS (CON'T):

- Short Bowel Syndrome (SBS):
  - SBS is the result of extensive bowel resection. The loss of a large segment of the small bowel causes malabsorption syndrome. Total parenteral nutrition (TPN) usually is started within the first few days after resection. Gradual supplementation with enteral feeding promotes intestinal adaptation in order to wean from TPN. Supplementation with fat soluble vitamins and vitamin B12 may be needed.
  - SBS in infants is mostly the result of resection for the treatment of congenital anomalies, necrotizing enterocolitis, etc.
  - In adults, Crohn's disease, radiation enteritis, mesenteric vascular accidents, trauma and recurrent intestinal obstruction are the most common conditions treated by small bowel resection and resulting in SBS.
- Inflammatory Bowel Disease (IBD):
  - Weight loss, growth impairment, and malnutrition are the most prevalent nutritional problems observed in IBD making nutritional support essential.
  - Exclusive elemental nutrition has been used to attain remission of Crohn's disease. However, symptoms tend to recur after resuming a conventional diet.
- Liver Disease:
  - Since the liver plays an essential role in the metabolic processes of nutrients, liver disorders have far-reaching effects on nutritional status.
  - Acute liver injury is often associated with anorexia, nausea and vomiting. Therefore, inadequate nutritional intakes are common.
  - Decreased bile salt secretion is associated with the maldigestion and impaired absorption of fat and fat-soluble vitamins.
  - Defects in protein metabolism associated with chronic liver failure make it important to consider the balance between preventing muscle wasting and promoting liver regeneration with causing hepatic encephalopathy. It is generally recommended that persons with chronic liver disease consume the same amount of dietary protein as that required by healthy individuals (0.74 g/kg).
- Pancreatic Disease:
  - In chronic pancreatitis, there is a reduced secretion of pancreatic enzymes leading to malabsorption. In severe cases, tissue necrosis can occur.
  - A high carbohydrate, low fat, low protein diet may be helpful.

## **NUTRITION COUNSELING/EDUCATION TOPICS (CON'T):**

- Biliary Tract Diseases:
  - Common diseases include gallstones without infection; gallstones in the bile duct causing obstruction, pain and cramps; and inflammation of the gallbladder caused by bile duct obstruction.
  - Obesity or severe fasting may increase risk for these disorders.
  - Since lipids stimulate gallbladder contractions, a low fat diet (25-30% of calories from fat) is often recommended. A lower fat diet is undesirable because some fat is required for stimulation and drainage of the biliary tract. Supplementation with fat soluble vitamins may be needed for persons with fat malabsorption or a chronic gall bladder condition.

## **POSSIBLE REFERRALS:**

- If the participant is taking any non-prescribed vitamin or mineral supplements, herbal supplements, or targeted nutrition therapy products, advise discussing these with the primary care provider.
- If the participant requires in-depth nutritional intervention beyond the scope of WIC services, refer to primary care provider or a clinical dietitian with expertise in this area of practice.
- If the participant does not have an ongoing source of health care, refer to primary care providers in the community or the local public health department.